REMARKS

Claims 1-7, 24-26, 36-46, and 49-50 are under examination in this case. Claims 1-7, 24-26, 36-39, 41-46 stand rejected under 35 U.S.C. § 112 first paragraph as lacking a written description. Claims 1-7, 24-26, 36-46, and 49-50 stand rejected under 35 U.S.C. § 112, first paragraph for lack of enablement. Claims 24 and 36, and claims 25-26, 37-46, and 50 stand rejected under 35 U.S.C. § 112, second paragraph. And claims 36-46 stand rejected under 35 U.S.C. § 102(b). The present reply amends claims 1, 24, and 36. Each of the Office's rejections is addressed below. Applicant respectfully requests reconsideration of the claims as amended.

Support for each of the above amendments may be found throughout the specification and in the original claims as filed. No new matter has been added by these amendments. These amendments were made solely for the purpose of bringing this case to issuance, and Applicant reserves the right to pursue the subject matter canceled by this amendment in this or a related future application.

Applicant respectfully traverses the written description rejection as the specification satisfies the written description requirement set forth by the U.S. Patent & Trademark Office's Written Description Guidelines (the "Guidelines") and case law.

The Guidelines, under the "Genus Analysis" decision tree, states:

> What is a representative number of species depends on whether one of skill in the art would recognize that applicant was in possession of the necessary common attributes or features of the elements

possessed by the members of the genus in view of the species disclosed or claimed. (Emphasis added.)

Given that Applicant's specification describes CDPK polypeptides useful in the invention, including functional and structural characteristics this standard is satisfied. Based on this information, there can be no question as to whether applicants were in possession of the claimed genus at the time their application was filed, and that those skilled in the art would have recognized Applicant's disclosure as a description of the invention defined by the present claims. The claims require that polypeptides encoded by the nucleic acid molecules of the claims include a particular motif that is described in the application, and also require a certain level of identity with sequences that are present in the specification. Applicant's specification thus clearly satisfies the written description requirement, as set forth by the case law, and applicants thus request reconsideration and withdrawal of the rejection under § 112, first paragraph.

Applicants also note that "[m]ention of representative compounds encompassed by generic claim language clearly is not required by §112 or any other provision of the statute." *In re Robins,* 429 F.2d 452, 456 (C.C.P.A. 1970). Moreover, "a specification may, within the meaning of 35 U.S.C. § 112, contain a written description of a broadly claimed invention without describing all species that claim encompasses." *Utter v. Hiraga* 845 F.2d 993, 998 (Fed. Cir. 1988). Applicant's specification clearly conveys to the skilled person that Applicant had possession of the claimed subject matter, the written description requirement of

§ 112 is therefore satisfied and the rejection should be withdrawn.

With respect to the scope of enablement rejection, Applicant notes that the claims have been amended to encompass subject matter (producing transgenic plants that are drought tolerant) acknowledged by the Office as enabled by the present specification and this rejection should be withdrawn.

In addition, Applicant also directs the Office's attention to the enablement standard as articulated in *In re Wands,* 858 F.2d. 713, 8 U.S.P.Q.2d 1400 (Fed. Cir. 1988). *Wands* involved the identification of monoclonal antibodies of a specific isotype directed against particular antigens. The nature of this technology involved screening hybridomas to identify those that secreted antibody having the desired characteristics. Identifying genes having the desired characteristics according to the present invention, as in *Wands,* involves straightforward and routine screening methods. As was stated in *Wands*, "a considerable amount of experimentation is permissible, if it is merely routine, or if the specification in question provides a reasonable amount of guidance with respect to the direction in which the experimentation should proceed." Certainly, in Applicant's case identifying and expressing genes encoding polypeptides including a PK useful for practicing the claimed invention cannot constitute undue experimentation, especially given the detailed teachings of the specification. Moreover, it is improper to find that such experimentation is "undue" simply because it requires some "trial and error," *W.L. Gore & Assoc. v. Garlock, Inc.* 721 F.2d 1540, 1557, 220 U.S.P.Q. 303, 316 (Fed. Cir. 1983). This is true even when the

experimentation is needed to weed out inoperative embodiments. *Atlas Powder v. E.I. DuPont deNemours*, 750 F.2d 1569, 1576-77, 224 U.S.P.Q. 409, 414 (Fed. Cir. 1984). Based on Applicant's teachings and what was well known in the art at the time the application was filed, Applicant's specification cannot reasonably be construed as limited to the disclosed "two highly homologous calcium-dependent protein kinase sequences (ATCDPK1 and ATCDPK1a) obtained from one plant species (*Arabidopsis*)."

Applicants amendments to claims 24 and 36 address the indefiniteness and anticipation rejections, and these rejections should also be withdrawn.

CONCLUSION

Applicants submit that the claims are in condition for allowance, and such action is respectfully requested. If there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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